CLAIMS

1. A woven or knitted fabric containing two types of yarns different from each other in a self-elongating property upon absorbing water wherein, when a test piece is prepared from the fabric in such a manner that said woven or knitted fabric is stabilized in dimension in the atmosphere having a temperature at 20°C and a relative humidity at 65% and then cut into pieces of 30 cm long in the warp or wale direction and 30 cm long in the weft or course direction; and yarns (1) having a high water-absorbing and self-elongating property and yarns (2) having a low water-absorbing and self-elongating property and respectively contained in the test pieces satisfy the following requirement:

$$A/B \leq 0.9$$

wherein A represents a mean length of the yarns (1) having high water-absorbent and self-elongative property and B represents a mean length of said yarns (2) having low water-absorbing and self-elongating property, the yarns (1) and (2) being arranged in the same direction as each other in the test piece and picked up from the test piece; the length of the respective yarn being measured under a load of 1.76 mN/dtex when the yarn is a non-elastic yarn having an elongation at break of 200% or less or under a load of 0.0088 mN/dtex when the yarn is an elastic yarn having an elongation at break higher than 200%, and whereby the air-permeability of said fabric increases when wetted with water.

2. The woven or knitted fabric containing two different types of yarns as defined by claim 1 wherein, when the two types of yarns (1) and (2) different in the water-absorbing, self-elongating property are respectively subjected to a measurement of self-elongation upon absorbing water in such a manner that each of the yarns is wound 10 times around a reel for hank having a circumference of 1.125m long under a load of 0.88 mN/dtex to form a hank; the hank is removed from

the reel and left to stand in the air atmosphere having a temperature at 20°C and a relative humidity at 65% for 24 hours to dry the hank; then the length (Ld, mm) of the dry hank is measured under a load of 1.76 mN/dtex when the yarn is a non-elastic yarn having an elongation at break of 200% or less, or under a load of 0.0088 mN/dtex when the yarn is an elastic yarn having an elongation at break higher than 200%; the hank is immersed in water at a temperature at 20°C for 5 minutes; then the hank is taken out from water; a length (Lw, mm) of the wet hank is measured under the same load as described above in response to the elongation at break of the hank; and the self-elongation of each yarn is calculated in accordance with the following equation:

Self-elongation of yarn (%) = $[(Lw-Ld)/(Ld)] \times 100$

one (1) of the two type of yarns is a high water-absorbing, self-elongating yarn having a mean self-elongation of +5% or more and the other (2) is a low water-absorbing, self-elongating yarn having a mean self-elongation lower than +5%.

3. The woven or knitted fabric containing two different types of yarns as defined by claim 2, wherein the difference ($E_{(1)} - E_{(2)}$) between the self-elongation ($E_{(1)}$) upon absorbing water of the yarn (1) and the self-elongation ($E_{(2)}$) upon absorbing water of the yarn (2) is in a range of from 5 to 40%.

4. The woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, having a knitted fabric structure, in which the yarns (1) and (2) are combined in parallel with each other, and the combined yarns form composite yarn loops in the fabric.

5. The woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, having a woven fabric structure in which the yarns (1) and (2) are combined in parallel with each

other, and the combined yarns form at least one of warps and wefts of the woven fabric.

6. The woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, wherein composite yarns or paralleled yarns formed from the two types of yarns (1) and (2), and the yarn (2) are arranged alternately with every at least one yarn in at least one direction selected from the warp and weft directions of the woven fabric structure or in at least one direction selected from the wale and course directions in the knitted fabric structure.

7. The woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, wherein at least one of the yarns (1) is combined with at least one of the yarns (2) to form a composite yarn.

8. The woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, wherein fibers, from which the yarn (1) having a high water-absorbing and self-elongating property is constituted, are selected from polyetherester fibers formed from polyetherester elastomer comprising hard segments comprising polybutylene terephthalate blocks and soft segments comprising polyoxyethylene glycol blocks.

9. A woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, wherein fibers from which the yarn (2) having a low water-absorbing and self-elongating property is constituted, are selected from polyester fibers.

10. A woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3 wherein, when the fabric is subjected to a measurement of change in opening area of the fabric in such a manner that a plurality of test pieces of the woven or knitted fabric are left to stand in the air atmosphere having a temperature at 20°C and a relative humidity at 65% for 24 hours to prepare a plurality of

dry test pieces and, separately, a plurality of other test pieces of said woven or knitted fabric are immersed in water at a temperature at 20°C for 5 minutes, then taken out from water, and sandwiched between a pair of filter papers under the pressure of 490 N/m^2 for one minute to remove water existing in the interstices between fibers in the test pieces to prepare a plurality of wet test pieces, surfaces of each of the dry and wet test pieces are observed by an optical microscope at a magnification of 20 and the opening areas of the dry and wetted test pieces are calculated in accordance with the following equation:

Opening area (%) =

[(total area of openings between yarns)/

(observed area)] × 100

then, a mean value of the measured opening areas of each of the dry and wetted test pieces are calculated and a change between the mean opening area of the wetted test pieces and the mean opening area of the dry test pieces was calculated in accordance with the following equation:

Change in opening area (%) =

[(mean opening area of wetted test pieces) - (mean opening area of dry test pieces)]/(mean opening area of dry test pieces) × 100,

the resultant change in the opening area is at least 10%.

11. A woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3 wherein, when a plurality of test pieces of the woven or knitted fabric are left to stand in the air atmosphere having a temperature of 20°C and a relative humidity of 65% for 24 hours to prepare a plurality of dry test pieces and, separately, a plurality of other test pieces of the woven or knitted fabric are immersed in water at a temperature of 20°C for 5 minutes, taken out from water, and sandwiched between a pair of filter

papers under the pressure of 490 N/m^2 for one minute to remove water existing in the interstices between fibers in the test piece to prepare a plurality of wet test pieces, air-permeabilities of the dry and wetted test pieces are measured in accordance with JIS L 1096-1998, 6.27.1, Method A (Frazir type method), and a mean air-permeability of the dry test pieces and a mean air-permeability of the wet test pieces are calculated from the measurement data, and the change in air-permeability is calculated in accordance to the following equation:
Change in air-permeability =

[(mean air-permeability of wetted test pieces) - (mean air-permeability of dry test pieces)]/(mean air-permeability of dry test pieces) × 100,

the resultant change in air-permeability is 30% or more.

12. A woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, having a change in roughness of at least 5%; determined in such a manner that a plurality of test pieces of the woven or knitted fabric are left to stand in the air atmosphere at a temperature of 20°C at a relative humidity of 65% for 24 hours to prepare a plurality of dry test pieces and, separately, a plurality of other test pieces of the woven or knitted fabric are immersed in water at a temperature of 20°C for 5 minutes, are taken out from water, and then are sandwiched between a pair of filter papers under the pressure of 490 N/m^2 for one minute to remove water existing in the interstices between fibers in the test pieces to prepare a plurality of wet test pieces, thickness (H1) of convexities and thickness (H2) of concavities formed in the woven or knitted fabric structure of each dry and wetted test pieces are measured, a roughness of each of the dry and wetted test pieces is calculated in accordance with the following equation:

Roughness (%) =

(thickness H1 of convexities) - (thickness H2 of concave portion)/(thickness H2 of concavities) × 100

wherein the thickness H1 of the convexities is a mean thickness of a convexities having an area of 1 mm × 1 mm and the thickness H2 of the concavities is a mean thickness of the concavities having an area of 1 mm × 1 mm and located in an approximately center part between two convexities adjacent to the concavities in the warp or course direction thereof, and the change in roughness is calculated in accordance with the following equation:

Change in roughness =

[(roughness of wetted test piece) - (roughness of dry test piece)]/100

13. A woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, having a woven fabric structure in which structure a group ($W_{(1)}$) consisting of a plurality of warp yarns, each formed solely from the yarns (2) having a low water-absorbing, self-elongating property and a group ($W_{(1+2)}$) consisting of a plurality of warp yarns, each formed of a composite yarn or a paralleled yarn formed from the yarns (1) having a high water-absorbing, self-elongating property and the yarns (2) having a low water-absorbing, self-elongating property, are alternately arranged with each other and the warp yarn groups intersect a group ($F_{(1)}$) consisting of a plurality of weft yarns, each formed solely from the yarns (2) having a low water-absorbing, self-elongating property, and a group ($F_{(1+2)}$) consisting of a plurality of weft yarns, each formed from composite yarns formed from the yarns (1) having a high water-absorbing, self-elongating property and the yarns (2) having a low water-absorbing, self-elongating property, whereby a plurality of regions having a high water-absorbing and self-elongating property and formed by the intersection of the warp group

($W_{(1+2)}$) and the weft group ($F_{(1+2)}$), are arranged with spaces from each other both in the warp and weft directions, in the form of islands in sea.

14. A woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 3, having a double knitted structure comprising a cylinder side knitted layer and a dial side knitted layer tucked from either one of said layers to the other, wherein the cylinder side knitted layer is formed from the yarns (2) having a low water-absorbing, self-elongating property, and in the dial side knitted layer, regions composed solely of the yarns (2) having a low water-absorbing, self-elongating property and regions composed of composite yarns, each formed of the yarn (1) having a high water-absorbing, self-elongating property and the said yarn (2) having a low water-absorbing, self-elongating property, are arranged alternately with each other in the course direction and/or the wale direction.

15. A woven or knitted fabric, containing two different types of yarns as defined by any one of claims 1 to 3, having a triply knitted structure comprising a cylinder side knitted layer, a dial side knitted layer and an intermediate knitted layer disposed between the above-mentioned two layers; in every adjacent two layers of the three knitted layers, either one of the two layers being tucked from the other, wherein the intermediate knitted layer is formed solely of the yarns (2) having a low water-absorbing, self-elongating property, and in each of said dial side and cylinder side knitted layers, regions composed solely of the yarns (2) having a low water-absorbing, self-elongating property and regions composed of composite yarns, each formed of the yarn (1) having a high water-absorbing, self-elongating property and the yarn (2) having a low water-absorbing, self-elongating property, are alternately arranged with each other in the course direction and/or the wale direction.

16. A woven or knitted fabric containing two

different types of yarns as defined by any one of claims 1 to 3, having a knitted fabric structure formed from of the two types of yarns (1) and (2), wherein the knitted fabric structure has a yarn density satisfying the following equation:

$$Co \times We \geq 2,000$$

wherein Co represents the number of courses per 2.54 cm in the transverse direction of said knitted fabric, and We represent the number of wales per 2.54 cm in the longitudinal direction of said knitted fabric.

17. A woven or knitted fabric, containing two different yarns as defined by any one of claims 1 to 3, wherein one surface of said woven or knitted fabric is raised by the raising treatment.

18. A woven or knitted fabric, containing two different types of yarns as defined by any one of claims 1 to 3, having an air-permeability of 50 $ml/cm^2.sec$ or less, determined in accordance with JIS L 1096-1998, 6.27.1, Method A (Frazir type method), in the air atmosphere having a temperature of 20°C and a relative humidity of 65%.

19. A woven or knitted fabric, containing two different types of yarns as defined by any one of claims 1 to 3, having a woven fabric structure in which one of warp and weft of the fabric is formed from composite or paralleled yarns, each formed from at least one yarn having a high water-absorbing, self-elongating property and at least one yarn having a low water-absorbing, self-elongating property, and the other one of warp and weft is formed from the yarns having a low water-absorbing, self-elongating property, and further exhibiting a cover factor in a range of from 1,800 to 2,800.

20. A woven or knitted fabric containing two different types of yarns as defined by claim 19, wherein the composite yarn comprises a core portion formed from at least one yarn having a high water-absorbing, self-elongating property and a sheath portion surrounding the

core portion and formed from a plurality of yarns having a low water-absorbing, self-elongating property.

21. Clothing comprising the woven or knitted fabric containing two different types of yarns as defined by any one of claims 1 to 20, and capable of increasing the air-permeability thereof upon absorbing water.

22. Clothing as defined by claim 21, wherein at least one portion of said clothing selected from an armhole, a side, a bust, a back and a shoulder is formed from the woven or knitted fabric containing two different yarns.

23. Clothing as defined by claim 21, selected from underwear.

24. Clothing as defined by claim 21, selected from sportswear.